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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,454	12/05/2003	Andrew James Seeley	M03B318	1037

7590 07/25/2006

The BOC Group, Inc.
Legal Services-Intellectual Property
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Murray Hill, NJ 07974

EXAMINER

COOKE, COLLEEN P

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,454

Applicant(s)

SEELEY ET AL.

Examiner

Colleen P. Cooke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 14-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/5/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Election/Restrictions

Applicant's election with traverse of Group I, claims 1-13 in the reply filed on 5/11/06 is acknowledged. The traversal is on the ground(s) that the search of Groups I and II would overlap in 423/210 and 239.1 and also on the grounds that the subject matter "necessarily" overlaps because the claims all belong to class 423. This is not found persuasive because a mere alleged overlapping of search areas does not give evidence that there is serious or undue burden of search and further because classification in a common class (not subclass) is likewise not sufficient evidence that there is no serious or undue burden of search given that the claims represent recognized divergent subject matter. In the instant case it is noted that Group I, drawn to the method of treating an exhaust gas containing ammonia and metalorganic vapour to eventually decompose the ammonia into nitrogen and hydrogen would also require a search in class 252, subclasses 193 and 374 while the search of Group II would not; additionally, drawn to an apparatus for treating a gas stream would also require a search in class 423, subclasses 212, 248, 644 and in class 96, subclasses 121 and 153, while the search of Group I would not.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-5 and 7-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishii et al. (5632964).

Ishii et al. teaches a method for cleaning exhaust gas which contains both ammonia and metalorganics such as trimethyl gallium and trimethyl indium including: first treating the metalorganic components with a first agent which can be copper on a soda or soda lime carrier and can be in the form of a heated fixed bed and second treating with an ammonia decomposition catalyst of nickel on a ceramic carrier with heat to decompose the ammonia into nitrogen and hydrogen (Column 1, lines 36-44; Columns 2-3, lines 66-5 respectively; Column 3, lines 27-30 and 62-65; Column 4, lines 7-28 and 51-53; Columns 6-7, lines 54-7 respectively; see also sole figure).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishii et al. (5632964) as applied to claim 4 above and further in view of Otsuka et al. (6749819).

Ishii et al. teaches the method for cleaning exhaust gas which contains both ammonia and metalorganics as described with respect to claim 4 above. Ishii et al. teaches an embodiment wherein the first and second treating steps are in separate chambers, as in claim 5, but does not

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teach an embodiment wherein the first and second treating steps occur in a single chamber subdivided into two zones as in claim 6.

It would have been obvious to modify the process of Ishii et al. by combining the separate chambers into a single chamber having two portions (one for each treating agent) because making each treating agent integral to single treatment chamber would be obvious to one of ordinary skill in the art (*In re Larson*, 144 USPQ 347 (CCPA 1965)), without any undue experimentation, particularly in light of the fact that benefits such as economy of scale could be recognized by doing so. It would further be obvious in light of the state of the art as evidenced by Otsuka et al. (6749819) which demonstrates by way of Figures 2 (A) and (B) that one of ordinary skill in the art would recognize each physical arrangements as a known and obvious variant of the other.

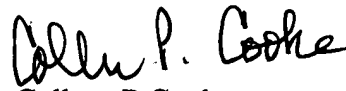
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colleen P. Cooke whose telephone number is 571-272-1170. She can normally be reached Mon.-Fri. 9:00 am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, her supervisor, Stan Silverman can be reached at 571-272-1358. The official fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Colleen P. Cooke". The signature is fluid and cursive, with the first name "Colleen" and last name "Cooke" clearly distinguishable.

Colleen P Cooke
Primary Examiner
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